Fig. 1

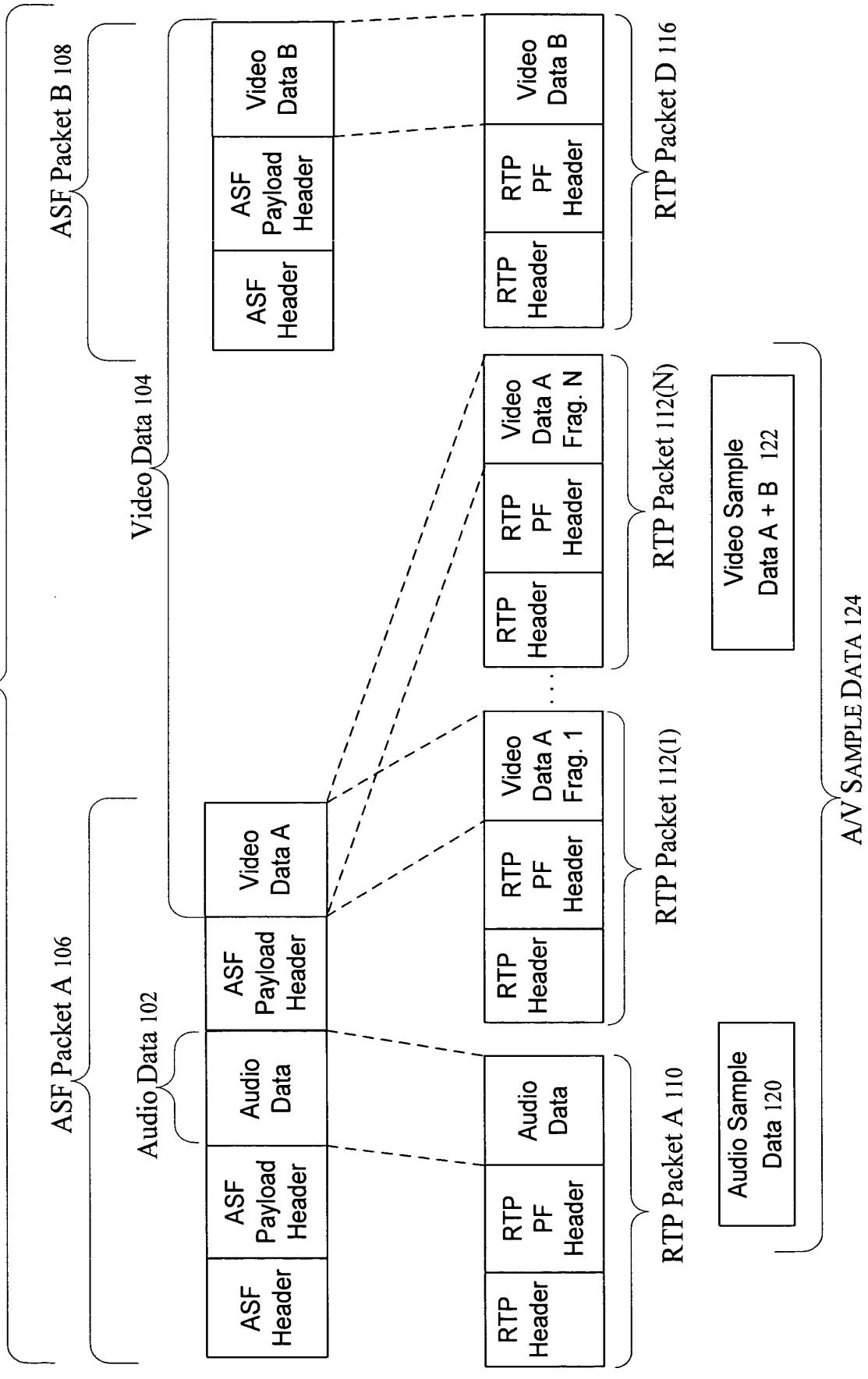
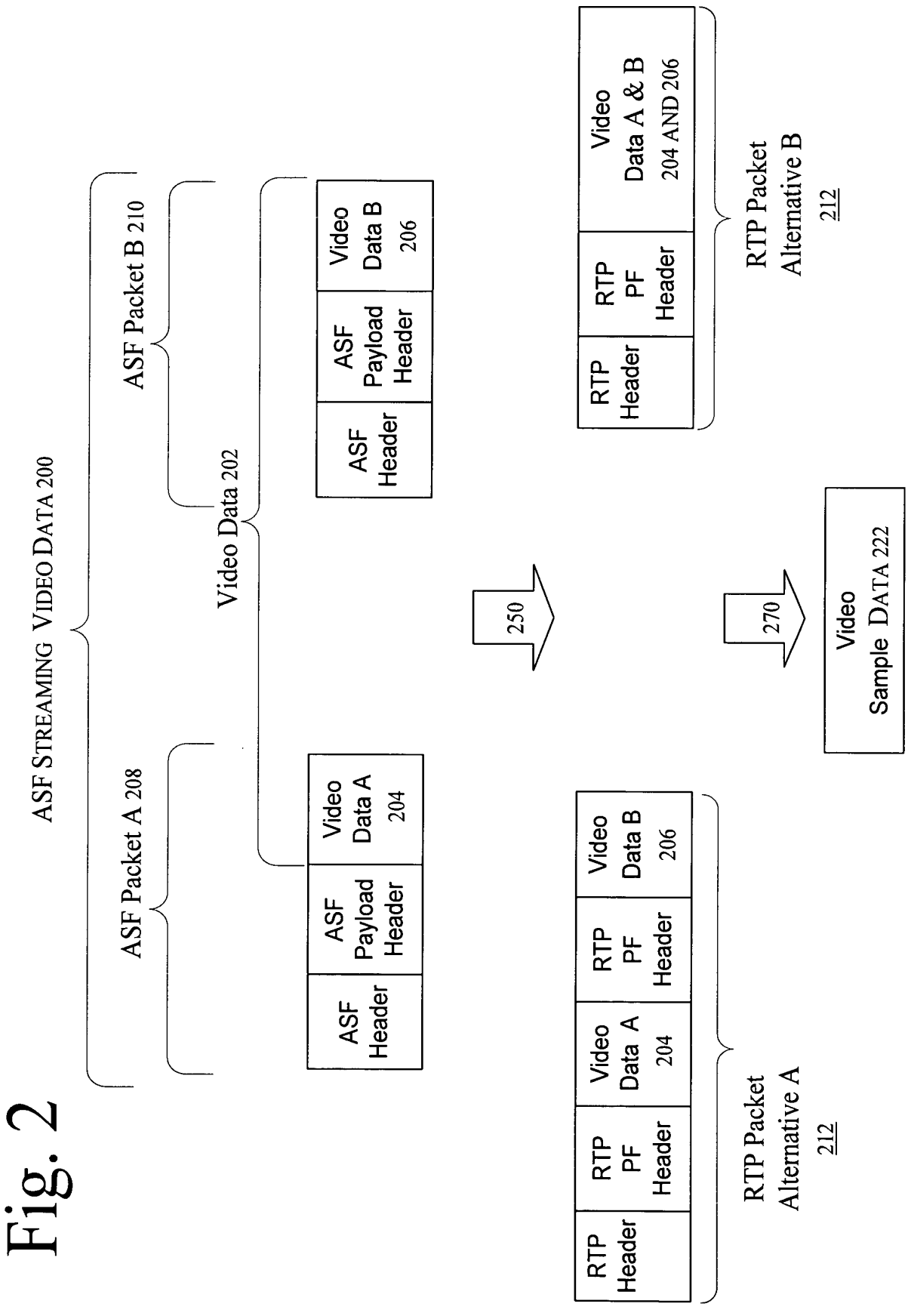
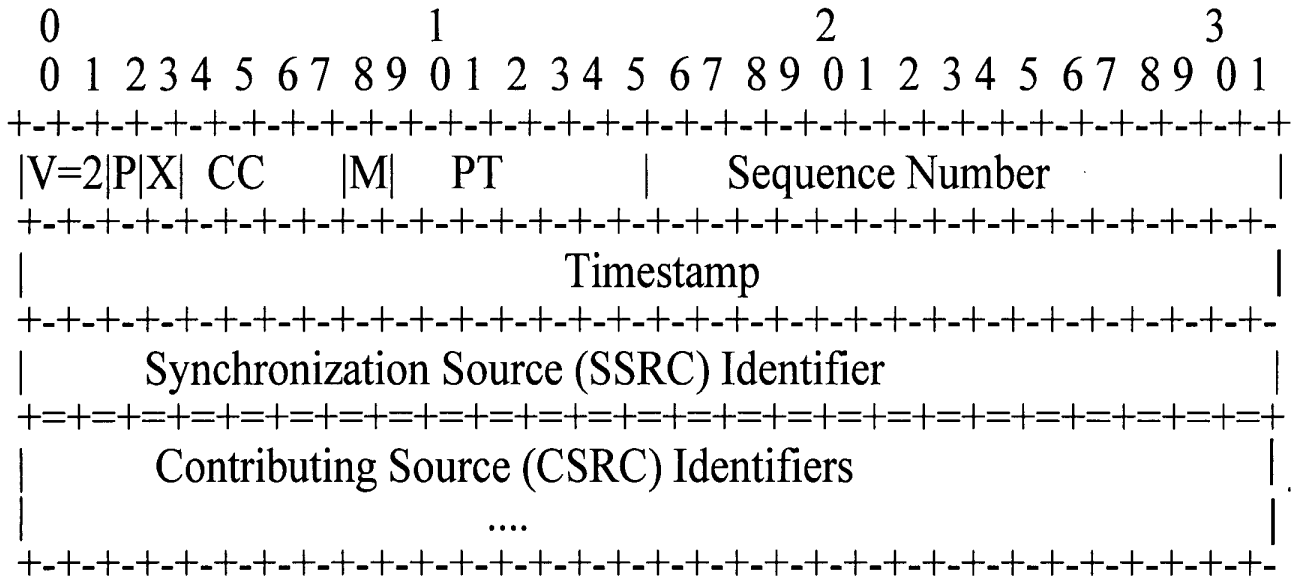

ASF Streaming A/V Data 100
ASF Packet A 106
ASF Packet B 108
Audio Data 102
Video Data 104
ASF Header
ASF Payload Header
Audio Data
Video Data A
Video Data B
RTP Header
RTP PF Header
Video Data A Frag. 1
Video Data A Frag. N
RTP Packet A 110
RTP Packet 112(1)
RTP Packet 112(N)
RTP Packet D 116
Audio Sample Data 120
Video Sample Data A + B 122
A/V Sample Data 124

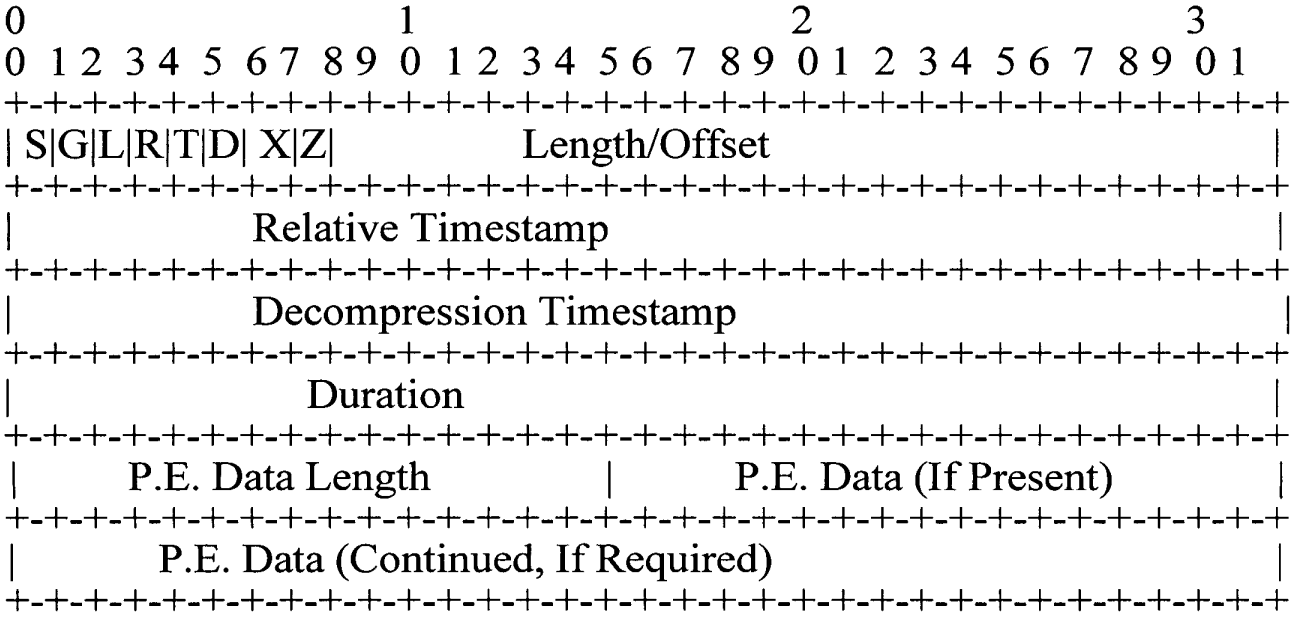
Fig. 2


ASF Streaming Video Data 200
ASF Packet A 208
ASF Packet B 210
Video Data 202
ASF Header
ASF Payload Header
Video Data A 204
Video Data B 206
250
RTP Header
RTP PF Header
Video Data A & B 204 AND 206
RTP Packet Alternative B 212
RTP Header
RTP PF Header
Video Data A 204
Video Data B 206
RTP Packet Alternative A 212
270
Video Sample Data 222



RTP Header

Fig.3a



RTP
Payload Format
(PF) Header

Fig. 3b

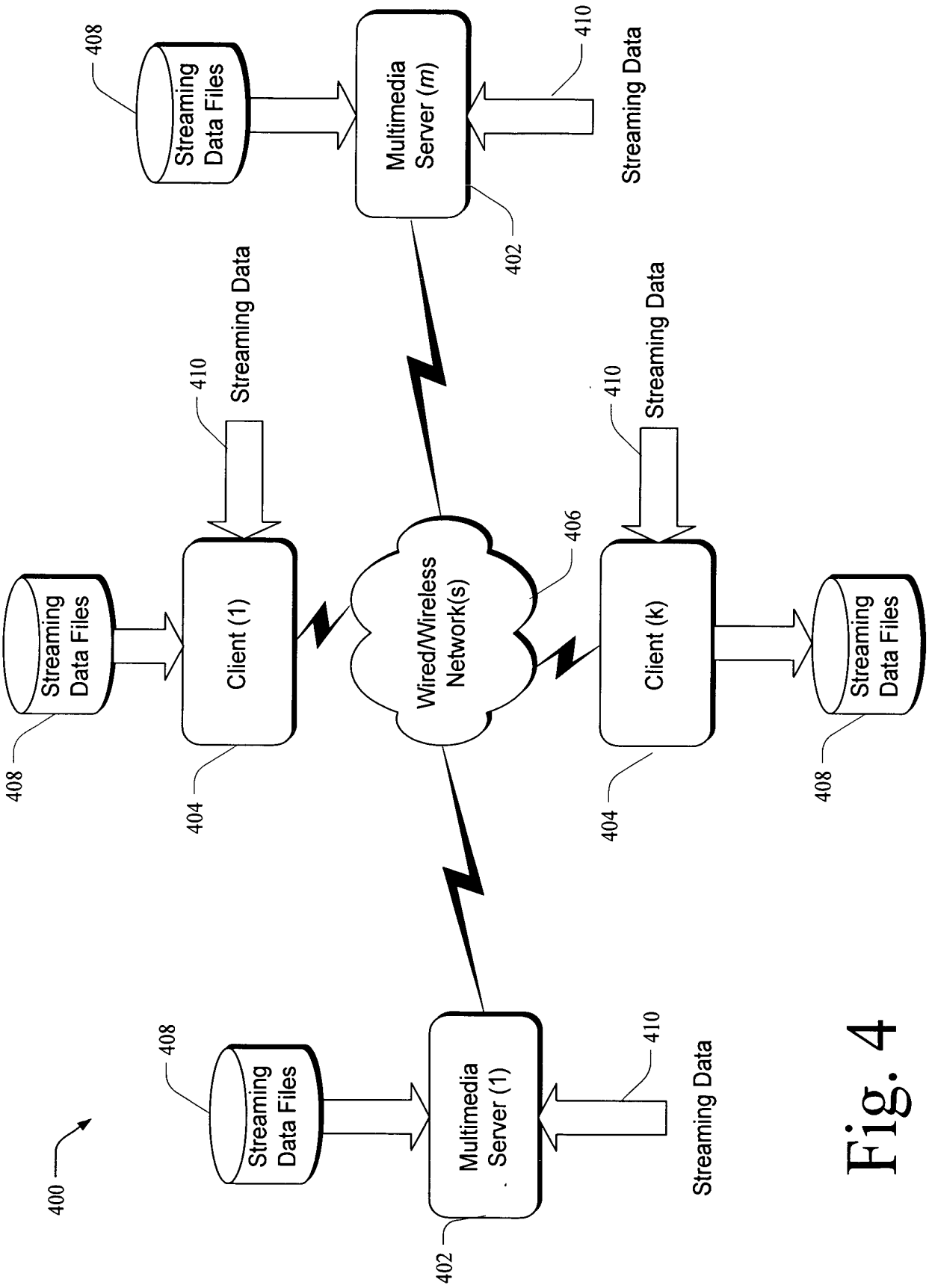

400
Streaming Data Files
408
Multimedia Server (1)
402
Streaming Data
410
Client (1)
404
Client (k)
Wired/Wireless Network(s)
406
Multimedia Server (m)

Fig. 4

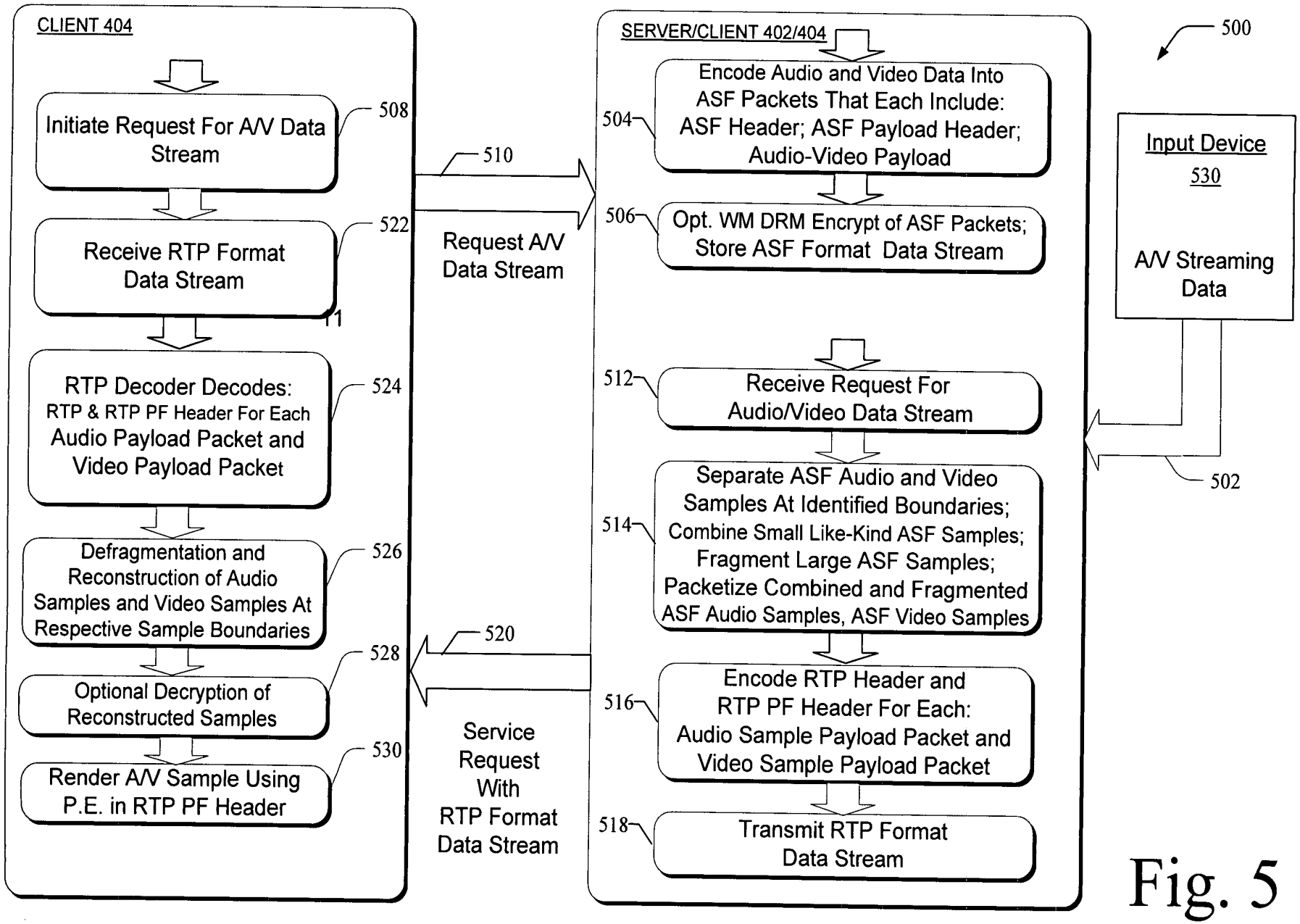

CLIENT 404
Initiate Request For A/V Data Stream
508
Receive RTP Format Data Stream
522
11
RTP Decoder Decodes:
RTP & RTP PF Header For Each
Audio Payload Packet and
Video Payload Packet
524
Defragmentation and Reconstruction of Audio Samples and Video Samples At Respective Sample Boundaries
526
Optional Decryption of Reconstructed Samples
528
Render A/V Sample Using P.E. in RTP PF Header
530
510
Request A/V Data Stream
520
Service Request With RTP Format Data Stream
SERVER/CLIENT 402/404
Encode Audio and Video Data Into ASF Packets That Each Include: ASF Header; ASF Payload Header; Audio-Video Payload
504
Opt. WM DRM Encrypt of ASF Packets; Store ASF Format Data Stream
506
Receive Request For Audio/Video Data Stream
512
Separate ASF Audio and Video Samples At Identified Boundaries; Combine Small Like-Kind ASF Samples; Fragment Large ASF Samples; Packetize Combined and Fragmented ASF Audio Samples, ASF Video Samples
514
Encode RTP Header and RTP PF Header For Each: Audio Sample Payload Packet and Video Sample Payload Packet
516
Transmit RTP Format Data Stream
518
500
Input Device
530
A/V Streaming Data
502

Fig. 5

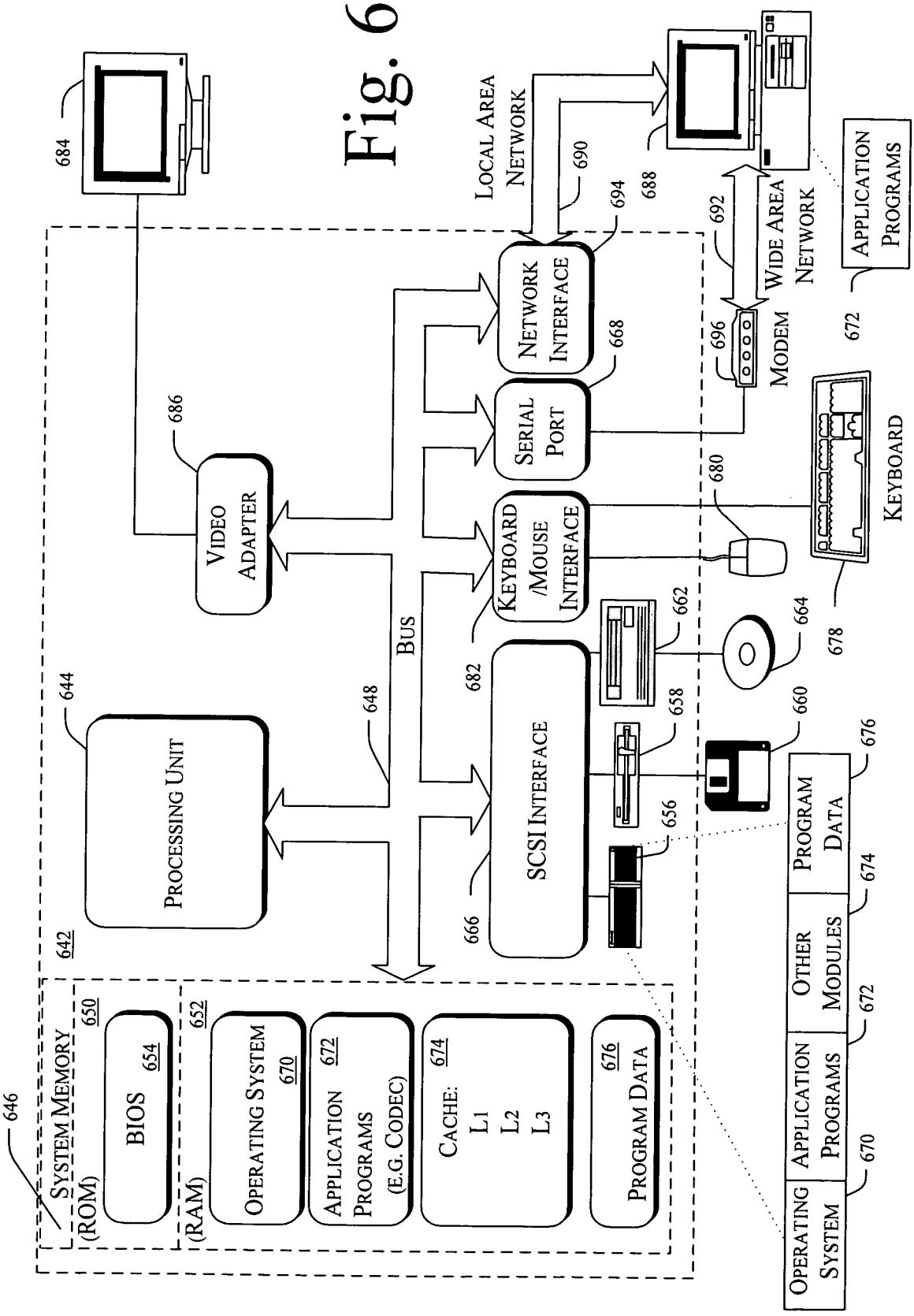

646
SYSTEM MEMORY
(ROM)
650
BIOS
654
(RAM)
652
OPERATING SYSTEM
670
APPLICATION PROGRAMS (E.G. CODEC)
672
CACHE: L1 L2 L3
674
PROGRAM DATA
676
642
PROCESSING UNIT
644
BUS
648
VIDEO ADAPTER
686
684
NETWORK INTERFACE
668
SERIAL PORT
KEYBOARD /MOUSE INTERFACE
682
SCSI INTERFACE
666
LOCAL AREA NETWORK
690
694
688
692
WIDE AREA NETWORK
MODEM
696
APPLICATION PROGRAMS
672
KEYBOARD
678
680
662
664
658
660
656
OPERATING SYSTEM
APPLICATION PROGRAMS
670
OTHER MODULES
672
PROGRAM DATA
674
676

Fig. 6